

Comment on the proposed designation of *Isospora suis* Biester, 1934 as the type species of *Isospora* Schneider, 1881 (Protista, Apicomplexa)

(Case 3187; see BZN 58: 272–274; 59: 125–128)

David S. Lindsay

Center for Molecular Medicine and Infectious Diseases, Department of Biomedical Sciences and Pathobiology, Virginia Tech, Blacksburg, Virginia 24061, U.S.A.

The issue of the designation of a type species for the genus *Isospora* Schneider, 1881 (Protista, Apicomplexa) was discussed at the 10th International Congress of Parasitology in Vancouver, Canada, August 9, 2002. The discussion was part of the American Society of Parasitologists Coccidiosis Conference, Chaired by D.S. Lindsay and L. Choromanski. David Modry, who proposed (Case 3187; BZN 58: 272–274) that *Isospora suis* Biester, 1934 be the type species of the genus *Isospora* Schneider, 1881, presented his thoughts in the presentation ‘Proposed designation of a new type species of the genus *Isospora* — consequences for taxonomy of isosporan coccidians’. Steve J. Upton, who has opposed this designation (BZN 59: 125–128), detailed his views in the presentation ‘Some historical perspectives on taxonomic problems associated with the genus *Isospora*’. Members of the American Society of Parasitologists Nomenclature and Terminology Committee were encouraged to attend and their input was solicited by Drs Modry and Upton. Productive discussions were held after the presentations.

The following consensus was achieved:

1. The mammal isosporans arose early from the EIMERIIDAE and belong in the SARCOCYSTIDAE, whereas the avian isosporans arose later out of the *Eimeria* lineage (Carreno & Barta, 1999; Morrison et al., 2004).

2. Because the avian isosporans were described first in a historical content, and represent the bulk of the isosporans, they should remain *Isospora* and the members in the SARCOCYSTIDAE should be termed *Cystoisospora* as proposed by Frenkel (1977).

3. Because there are presently not sufficient data on morphology in conjunction with molecular biology for any of the avian *Isospora*, no type species should be assigned at this time for avian *Isospora*.

4. *Isospora suis* Biester, 1934 has all the morphological and molecular features of mammalian isosporiid coccidia studied to date (Box et al., 1980; Lindsay et al., 1983; Carreno et al., 1998; Carreno & Barta, 1999; Franzen et al., 2000; Barta et al., 2001; Modry et al., 2001) but does not form tissue cysts in paratenic hosts (Pinckney et al., 1993).

5. The feline coccidium *Cystoisospora felis* meets all morphological (Shah, 1970; McKenna & Charleston, 1982), biological (Dubey & Frenkel, 1972; Frenkel & Dubey, 1972) and molecular characteristics (Carreno & Barta, 1999; Morrison et al., 2004) of the mammalian isosporans.

However, I am aware that not all fellow workers in this field are in agreement with the points raised above. I therefore suggest that this issue be left open for the time

being and that further discussions and possibly further research be undertaken before the Commission is asked to make a final ruling.

Additional references

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- Carreno, R.A. & Barta, J.R. 1999. An eimeriid origin of isosporoid coccidia with Stieda bodies as shown by phylogenetic analysis of small subunit ribosomal RNA gene sequences. *Journal of Parasitology*, **85**: 77–83.
- Frenkel, J.K. & Dubey, J.P. 1972. Rodents as vectors for feline coccidia, *Isospora felis* and *Isospora rivolta*. *Journal of Infectious Diseases*, **125**: 69–72.
- Lindsay, D.S., Current, W.L. & Ernst, J.V. 1983. Excystation of *Isospora suis* Biester 1934. *Zeitschrift für Parasitenkunde*, **69**: 27–34.
- McKenna, P.B. & Charleston, W.A. 1982. Activation and excystation of *Isospora felis* and *Isospora rivolta* sporozoites. *Journal of Parasitology*, **68**: 276–286.
- Morrison, D.A., Bornstein, S., Thebo, P., Wernery, U., Kinne, J. & Mattsson, J.G. 2004. The current status of the small subunit rRNA phylogeny of the coccidia (Sporozoa). *International Journal for Parasitology*, **34**: 501–514.
- Shah, H.L. 1970. Sporogony of the oocysts of *Isospora felis* Wenyon, 1923 from the cat. *Journal of Protozoology*, **17**: 609–614.

Comment on the proposed precedence of *Ovula gisortiana* Passy, 1859 over *Cypraea coombii* J. de C. Sowerby in Dixon, 1850 (Mollusca, Gastropoda)
(Case 3220; see BZN **59**: 173–175; **60**: 218–220; **61**: 40–42)

Jonathan A. Todd

Department of Palaeontology, The Natural History Museum, London SW7 5BD, U.K.

The concluding statement to my previous comment was excluded from the printed version (BZN **60**: 218–220). It is given here as it summarises my primary objections to Pacaud & Dolin's proposal: 'in the future by using appropriate techniques it may be possible to demonstrate that *G. gisortiana* is a subjective synonym of *G. coombii*, and that the type species of *Gisortia* would then be correctly known under that name. However, given the lack of systematic or other detailed work on *Gisortia* over the past 70 years, rather than passing references to this strange looking cowry, I believe that were this to happen systematic stability would be essentially unaffected'.

A major concern with Pacaud & Dolin's application is that they have failed to demonstrate whether any of it is necessary. So are the two species synonymous? In the last systematic reappraisal of this group Schilder (1930) considered that they were not. Currently there are no new published morphological data nor has there been any published re-evaluation of old data. Therefore, the suggestion that the species are 'probably conspecific' (BZN **59**: 173, para. 4) can be seen as nothing more than that. If Pacaud & Dolin are unsure then clearly their proposal is premature. I noted that Schilder's work was the most complete on this group. Pacaud (BZN **61**: 41, para. 3) has interpreted this to mean that I considered it to be 'the best work' and then goes